

Work Stress and Psychological Consequences in The Workplace: Study on Elementary School Teachers

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Abstract: There are very limited studies examining the relationships between work stress and psychological consequences of the teachers, especially elementary school teachers. Therefore, the primary purpose of conducting this research is to understand the correlation between teachers' work stress, and burnout and job satisfaction. It also aims to understand sources and levels of teachers' work stress. The findings of the study showed that there were no correlation between teachers' work stress and burnout, and between teachers' work stress and job satisfaction.

Keywords: teachers' work stress, psychological consequence, job satisfaction.

Job condition becomes the dominant sources of teachers' stress. Some studies found that teaching is a particularly stressful occupation (McCormick, 1997). A research done by Smith and Bourke (1992) showed that 66 per cent of teachers' stress rooted from work condition.

In educational setting, many potential sources of stress in the workplace were found. Capel (1992) found that the dominant sources of teachers' stress were (1) too much work to do, (2) not enough time to do the work, (3) demands on after-school time, (4) too much paperwork, and (5) constant monitoring of pupils' behavior. The latest research findings showed that the domi-

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nant sources of stress in the teachers' workplace were: (1) salary deduction, (2) delayed promotion, (3) individual students who continually misbehaved, (4) conflicts with school personnel, (5) noisy school environment, and (6) lack of motivation, attention and response of the students toward their lessons (Arismunandar, 1998).

Some research findings revealed that most teachers experienced high or serious stress in the workplace. Fontana and Abouserie (1993), for instance, revealed that 23.2 percent of the teachers selected as subjects were in *serious stress* category and 72.6 percent were in *moderate* range stress category. The latest research showed that 30.27 percent out of 555 teachers selected as the subjects of the study experienced *serious* or *high stress*, 48.11 percent experienced *moderate level of stress*, and 21.62 percent extremely experienced *low stress* in their work (Arismunandar, 1997).

Compared with junior high school and senior high school teachers, elementary school teachers tend to experience higher stress. It is supported by the findings of teachers' work stress done by Arismunandar (1997) and the findings of teachers' burnout phenomenon done by Mohammed (1991).

Stress in the work place and psychological health of the work force became the prominent areas of studies during the last three decades. Work stress is a term used to show the forced condition experienced by an individual caused by certain condition that occurs in a workplace. The term differs from other kinds of stress that occur in family or social environment (Gmelch et al, 1984; Robbins, 1990). Stress has been identified as a serious phenomenon that adversely affects the health and life and the style of individual, and in some cases, to death (Allison, 1997). Stress may cause many kinds of hindrances and diseases. The hindrances might be in the form of psychological, physiological, and behavioral problems (Farmer et al, 1984; Robin, 1990). Psychologically, some research findings indicated that the correlation and consequences of stress—including burnout and satisfaction—were common in general populations (Maslach, 1982). Burnout is a psychological syndrome which is mostly experienced by workers. According to Maslach (1982), burnout is a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment which can occur in individuals who do "people work" of some kind. It is a response to the chronic emotional strain of dealing extensively with other human beings, particularly when they are in trouble or having problems.

The concept of satisfaction is anchored in Maslow's theory of hierarchy of needs (1970). According to this, the fulfillment of needs such as achieve-

ment, feedback and reinforcement, and the attainment of one's intellectual potential are essential for satisfaction, especially if an individual has high expectations of self-fulfillment.

However, there are very limited studies examining the relationships between work stress and psychological consequences of the teachers, especially elementary school teachers. Capel (1992) and Hodge et al (1994) examined stress and burnout phenomena; nevertheless the relationships of those variables were not examined, except Dworkin et al (1990) who investigated the correlation between job stress and illness behavior.

Based on such consideration, the main purpose of the study is to know whether there are correlation between: (1) work stress and burnout of public elementary school teachers, and (2) work stress and job satisfaction of public elementary school teachers.

METHODS

The population of the research was public elementary school teachers in South Sulawesi. There are 38,345 public elementary schools teachers, and this research was done on 380 teachers as samples group. The sample size of this research was drawn based on the table of samples arranged by Krejcie and Morgan quoted by Isaac and Michael (1981). The technique of sample collection was done using stratified-proportional random sampling by which the size of agency, city categories, and sex were taken into consideration.

Questionnaires became a primary technique to collect data in this study. There were three kinds of instruments used for collecting data. The development of the questionnaire is explained as follows.

The teachers' work stress was measured with the Teachers Work Stress Questionnaire (TWSQ) (Arismunandar, 1997). It was important to use an instrument that had been adequately developed in order to assess the specific kinds of stressor experienced by teachers. The questionnaire consisted of 38 items in order to know how far certain situation causes stress. The answers of respondents moved from unstressful to extremely stressful. The score of unstressful was 1 and extremely stressful was 5.

The questionnaire had passed the tests of its validity and reliability done by Arismunandar (1997). Construct validity was done using factor analysis technique. Based on the factor analysis, 38 items yielded six subscales: (1) prosperity; (2) teaching; (3) student; (4) relationship and conflict; (5) organi-

zation climate; and (6) time dimension. Those six factors had 72,7 per cent variant, which were considered to be adequate to represent 38 questionnaire.

The test on reliability was done in order to know the internal consistency of the questionnaire. This test used Cronbach's alpha technique. The alpha coefficient yielded from the reliability of test result of all items of the instrument was 0.96 (Arismunandar, 1997).

The teacher's burnout was measured with the Teacher Burnout Scale adopted from Seidman and Zager (1981). It measured burnout among teachers through a 21-item Lifetree scale. The alternative of the answers moved from extremely disagree, disagree, not quite agree, approximately agree, agree, and extremely agree. Factor analysis yielded four subscales: (1) career satisfaction; (2) perceived administrative support; (3) coping with job-related stress; and (4) attitudes toward students.

Mappincara (1999) used this scale which passed the test of its validity. Through the test, it was found that, generally, the items of the Teacher Burnout Scale were valid. The result of reliability test by Mappincara, using Cronbach's alpha technique, showed that index of reliability of this scale was 0.77.

Teachers' job satisfaction was measured with job-satisfaction questionnaire adopted from Lam et. al. (1997). The questionnaire measures teachers' satisfaction through 35 items with six-point scale. The respondents' answer moves from extremely disagree (0) to extremely agree (5).

Validity testing was accomplished to know the validity of questionnaire using Product Moment Correlation, which correlated item score and total score for each factor. The results of the analysis indicated that all of items were valid with which the probability was below 0.05. The result of reliability test that was accomplished by using Cronbach's alpha technique showed that index of reliability of this scale was 0.89.

RESULTS

The collected data consisted of the data about works stress, burnout, and job satisfaction of the elementary schools teachers in South Sulawesi. All the data were obtained through the research questionnaires. The description of data of research variables is presented in the Table 1.

From the table, the mean score of teachers' work stress was 112.38 with standard deviation of 24.77. It showed moderate level of work stress. While the mean score of teachers burnout was 34.32 with standard deviation of

10.78. It showed low level of teachers' burnout. The mean score of teachers' job satisfaction was 136.39 with standard deviation of 19.97. It showed the high level of work satisfaction..

Table 1 Description of Research Data

Variable	Mean	Std. Dev	Minimum	Maximum	Valid N
Work Stress	112.38	24.77	47.00	174.00	377
Burnout	34.32	10.78	10.00	67.00	377
Work Satisfaction	136.39	19.97	36.00	172.00	377

The data of the teachers' work stress level are presented in Table 2. Table 2 showed that 158 teachers (41.9%) experienced moderate work stress; 114 teachers (30.2%) experienced low work stress; 80 teachers (21.2%) experienced high work stress; 15 teachers (4.0%) experienced very high stress; and 10 teachers (2.7%) experienced very low work stress. Cumulative percentage of high and very high categories was 25.2%, which showed that 25% teachers seriously experienced work stress. Cumulative percentage of low and very low categories was 32.9%. The moderate category tended to be the biggest percentage in which 41.9% teachers experienced works stress. The data showed that most of elementary school teachers in South Sulawesi experienced moderate stress.

Table 2 Level of Teachers' Work Stress

No	Range	Category	f	%
1	38-67	Very low	10	2.7
2	68-98	Low	114	30.2
3	99-129	Moderate	158	41.9
4	130-160	High	80	21.2
5	161-190	Very high	15	4.0
Total			377	100

The data of elementary school teacher's burnout level are presented in Table 3. The table showed that 256 elementary school teachers (67.9%) experienced low burnout; 79 teachers (21%) experienced moderate burnout; 38 teachers (10.1%) very low burnout; 4 teachers (1.1%) experienced high; and

none of the subjects experienced very high burnout. Cumulative percentage of very low and low categories was 78%, while cumulative percentage of high and very high categories was 1.1% only. Based on the data, it could be concluded that most teachers experienced low burnout.

Table 3 Level of Elementary School Teachers' Burnout

No	Range	Category	F	%
1	0-21	Very low	38	10.1
2	22-42	Low	256	67.9
3	43-63	Moderate	79	21.0
4	64-84	High	4	1.1
5	85-105	Very high	-	-
Total			377	100

Data of teachers' job satisfaction level are presented in Table 4. The table showed that 189 elementary school teachers (50.1%) got high job satisfaction.; 171 teachers (45.4%) got very high job satisfaction; 10 teachers (2.7%) got moderate job satisfaction; and 7 teachers (1.9%) got low job satisfaction. Cumulative percentage of high and very high job satisfaction was 95.5%. Based on that, it can be concluded that generally elementary school teachers in South Sulawesi got high job satisfaction.

Table 4 Level of Elementary School Teachers' Job Satisfaction

No	Range	Category	F	%
1	0-35	Very low	-	-
2	36-70	Low	7	1.9
3	71-105	Moderate	10	2.7
4	106-140	High	189	50.1
5	141-175	Very high	171	45.4
Total			377	100

Means analysis was done in order to know the most dominant sources of teachers' work stress or stressors that made teachers experienced stress. Analysis was done by computing mean scores of 38 items of teachers' work

stress questionnaire. The analysis results showed that there were six main sources of elementary teachers' work stress as presented in Table 5.

Table 5 The Primary Sources of Teachers' Work Stress.

No.	Sources of Work Stress	Mean	Std.Dev	Rank
1	Insufficient salary	3.81	1.12	1
2	Salary deduction	3.64	1.28	2
3	Insufficient teaching facilities and resources	3.31	1.12	3
4	Too much administrative/clerical work	3.28	1.23	4
5	Delayed Promotion	3.25	1.29	5
6	Individual student who continuously misbehaved	3.21	1.18	6

The table showed that "insufficient salary" became the main source of teachers' work stress, then the second to six ranks were "salary deduction," "insufficient teaching facilities and resources," too much administrative/ clerical work," "delayed promotion," and "individual students who continuously misbehaved."

Correlation analysis technique of Pearson's Product Moment was used to test the hypothesis whether there was any significant correlation between teachers' work stress and teachers' burnout and job satisfaction.

The results of correlation analysis showed that the coefficient correlation between teachers' work stress and burnout was 0.0354 with $p = 0.493$. It means there is no correlation between teachers' work stress and teachers' burnout. Then, the correlation coefficient of teachers' work stress and job satisfaction was 0.0339 with $p = 0.511$. It means there is no correlation between teachers' work stress and job satisfaction.

The correlation between teachers' burnout and job satisfaction did not basically become the objective of this research. However, the correlation matrices showed that the coefficient correlation of the two variables was -0.1513 with $p = 0.003$. The results of correlation analysis showed that there was negative correlation between teachers' burnout and job satisfaction. Simple regression analysis was done to test the correlation between the two variables. Based on the results of regression analysis, it was known that the coefficient F was 8.78775 with level of significance = 0.0032. These results strengthened the conclusion that teachers' burnout could be used to predict teachers' job satisfaction.

DISCUSSION

The results of analysis showed that the teachers' work stress level tended to be at moderate level. The findings did not differ from the former researches. Researches done by Borg and Riding (1993), Dworkin (1987), Feitler and Tokar (1982), Fontana and Abouserie (1993), and Arismunandar (1997) revealed that most teachers experienced moderate work stress.

Even though they were at moderate level, the cumulative percentage of high and very high categories of work stress was 25.2%. It showed that 25% out of population of teachers seriously experienced work stress. This phenomenon should be viewed as an indicator that teaching profession is sensitive to serious stress. Serious stress may cause low individual performance. It makes them feel that they cannot fulfill work requirements (Davis & Newstrom, 1989). Therefore, in order to cope with work stress, teachers should understand and apply the appropriate strategies of work stress management.

In contrast, that cumulative percentage of low and very low categories was 32.9% shows that about one third of population of teachers feel that they do not have any constraints which may affect their performance to be low. Therefore, both serious and low stress may have similar effect on the teachers' performance.

In addition, the research findings show that the teachers' burnout level tends to be at low level. The findings of this research are similar to Capel's research findings (1992), but they are different from Mohammed's research findings (1991). He found that teachers' burnout level was at moderate level. So far, the research results indicate that elementary school teachers still have positive thinking to their work. Elementary school teachers are not at the categories of loss of idealism, loss of motivation, loss of concern, loss of energy in the teaching profession, as mentioned by Mohammed.

In terms of job satisfaction, the research reveals that teachers' job satisfaction level tends to be high. This is in accordance with their low burnout level. Then, it could be said that elementary school teachers have positive feeling on their work, the feeling with which they view that their job fulfill job values. From perspective of performance improvement, the findings are positive that high job satisfaction may increase individual performance.

The research results shows that "insufficient salary" becomes the main source of teachers' work stress. The next five sources are "salary deduction," "insufficient teaching facilities and resources," "too much administrative/ clerical work," "delayed promotion," and "individual students who continuously misbehaved." This is a surprising finding because the former finding

(Arismunandar, 1997) shows that the main source of teachers' work stress is "salary deduction" while "insufficient salary" is at rank 10. The change of main source of teachers' work stress might be affected by economic crisis causing teachers' low purchasing power. Besides, generally elementary school teachers get relatively lower salary than the teachers of higher levels do.

The result of analysis shows that there are no significant correlations between stress and burnout, and between stress and job satisfaction. Some experts have analyzed correlation between stress and burnout. Several former studies revealed correlation between stress and teachers burnout (Dworkin et al, 1990; Seidman & Zager, 1987; Capel, 1992; Russell et al, 1987).

The findings of this research show that there is no correlation between work stress and job satisfaction. This differs from the former findings. Olsen (1993) and Dua (1994) revealed that work stress affected teachers' job satisfaction. The findings showing that there is no correlation between work stress and psychological consequence (burnout and job satisfaction) might be affected by mechanism of cognitive appraisal of teachers. A kind of cognitive appraisal is "secondary appraisal", that is individual appraisal on his/her ability to cope with stimulus or stress sources (Cox & Ferguson, 1991). When an individual considers that he/she could cope with stress, it does not give serious impact on other psychological symptoms, including burnout and job satisfaction. Therefore, the study could not find the correlation between stress, and burnout and job satisfaction.

Out of the objective of this research, the research findings show that there is negative correlation between burnout and job satisfaction. The findings are in line with the former findings revealed by Dworkin (1987). The explanation of the findings is based on the idea of Lam et al (1997) that individual strong negative feeling on various aspects of work could decrease positive feeling. It causes his/her job satisfaction to decline, and vice versa.

CONCLUSION AND SUGGESTIONS

Conclusion

The followings are the conclusion based on the results of data analysis. The elementary school teachers' work stress in South Sulawesi is at moderate level; the elementary school teachers' burnout is at low level; and the elementary school teachers' job satisfaction is at high level.

The main sources of teachers' work stress are (1) insufficient salary, (2) salary deduction, (3) insufficient teaching facilities and resources, (4) too

much administrative/clerical work, (5) delayed promotion, and (6) individual students who continuously misbehaved.

The result of correlational analysis shows that there is no correlation between teachers' work stress and burnout. It also shows that there is no correlation between teachers' work stress and job satisfaction. Finally, it shows that there is negative correlation between teachers' burnout and job satisfaction.

Suggestions

Based on the research findings and discussion, several recommendations are proposed to related parties as follows.

The government should do efforts to improve the teachers' welfare by increasing elementary school teachers' salary and omitting salary deduction practice in order to cope with teachers' work stress.

The principals and supervisors of elementary schools should improve their ability to help teachers to manage their work stress.

The educational institution and human resources, and training institution should provide learning experience to teachers to prepare them to face and cope with their work stress.

Teachers should recognize the sources of their work stress in order to develop appropriate strategies for stress management.

Organizations of teaching profession should increase their attention and efforts to improve work situation of teachers in Indonesia.

Researchers should do further studies on the correlations of variables of this research in order to develop and test it for other populations, and on how teachers cope with their work stress.

REFERENCES

- Allison, D.G. 1997. Coping with Stress in the Principalship, *Journal of Educational Administration*, 35 (1): 39-55.
- Arismunandar, 1997. *Hubungan Karakteristik Individu dan Karakteristik Lingkungan dengan Stress Kerja Guru di Sulawesi Selatan*, Unpublished Dissertation, Malang: Graduate School of the Institute of Teacher Training and Education.
- Arismunandar, 1998. Sumber-sumber Stress Kerja Guru. *Jurnal Ilmu Pendidikan*, 7 (2): 1-10.
- Borg, M.G. & Riding, R.J. 1993. Teacher Stress and Cognitive Style. *British Journal of Educational Psychology*, 63: 271-286.

- Capel, S.A. 1992. Stress and Burnout in Teachers. *European Journal of Teacher Education*, 15 (3): 197-211.
- Cox, T. & Ferguson, E. 1991. Individual Differences, Stress and Coping. In C.L. Cooper & R. Payne (Eds.), *Personality and Stress: Individual Differences in the Stress Process*. Chichester: John Wiley & Sons.
- Davis, K. & Newstrom, J.W. 1989. *Human Behavior at Work: Organizational Behavior*. New York: McGraw-Hill Book Company.
- Dua, J.K. 1994. Job Stresses and Their Effects on Physical Health, Emotional Health, and Job Satisfaction in a University. *Journal of Educational Administration*, 32 (1): 59-78.
- Dworkin, A.G. 1987. *Teacher Burnout in the Public School: Structural Causes and Consequences for Children*. New York: State University of New York Press.
- Dworkin, A.G., Haney, C.A., Dworkin, R.J. & Telschow, R.L. 1990. Stress and Illness Behavior among Urban Public School Teachers. *Educational Administration Quarterly*, 26 (1): 60-72.
- Farmer, R.E., Monahan, L.H. & Hekeler, R.W. 1984. *Stress Management for Human Services*. Beverly Hills: Sage Publications.
- Feitler, F.C. & Tokar, E. 1982. Getting a Handle on Teacher Stress: How Bad is the Problem? *Educational Leadership*, March: 456-458.
- Fontana, D. & Abouserie, R. 1993. Stress Levels, Gender and Personality Factors in Teachers. *British Journal of Educational Psychology*, 63: 261-270.
- Gmelch, W.H., Lovrich, N.P. & Wilke, P.K. 1984. Source of Stress in Academy: A National Perspective. *Research in Higher Education*, 20 (4): 477-490.
- Hodge, G.M., Jupp, J.J. & Taylor, A.J. 1994. Work Stress, Distress, and Burnout in Music and Mathematics Teachers. *British Journal of Educational Psychology*, 64: 65-76.
- Isaac, S. & Michael, W.B. 1981. *Handbook in Research and Evaluation*. California: Edits Publishers.
- Lam, P., Yeen, F.Y. & Ngoh, M.S. 1997. Job Satisfaction and Withdrawal Cognition among Preservice Teachers. In J. Tan, S. Gopinathan & Ho Wah Kam. *Education in Singapore: A Book of Reading*. Singapore: Simon & Schuster.
- Mappincara, A. 1999. *Hubungan Faktor-faktor Lingkungan dan Burnout Guru di Kotamadya Ujung Pandang*, Laporan penelitian tidak diterbitkan. Ujung Pandang: Lembaga Penelitian IKIP Ujung Pandang.
- Maslach, C. 1982. *Burnout: The Cost of Caring*, Englewood Cliffs, New Jersey: Prentice-Hall, Inc.
- McCormick, J. 1997. Occupational Stress of Teachers: Biographical Differences in a Large System. *Journal of Educational Administration*, 35 (1): 18-38.
- Mohammed, S.A. 1991. Teacher Burnout in the United Arab Emirates Public School. In H.W. Kam & R.L.Y. Wong (Eds.), *Improving the Quality of the Teaching Profession: An International Perspective*. Singapore: Institute of Education.

- Olsen, D. 1993. Work Satisfaction and Stress in the First and Third Year of Academic Appointment. *Journal of Higher Education*, 64 (4): 453-471.
- Robbins, S.P. 1990. *Organizational Behavior: Concepts, Controversies, and Applications*. New Delhi: Prentice Hall of India Private Limited.
- Russel, D.W., Altmaier, E. & Velsen, D.V. 1987. Job-Related Stress, Social Support, and Burnout among Classroom Teachers. *Journal of Applied Psychology*, 72 (2): 269-274.
- Seidman, S.A. & Zager, J. 1987. The Teacher Burnout Scale. *Educational Research Quarterly*, 11 (1): 26-33.
- Smith, M. & Bourke, S. 1992. Teacher Stress: Examining a Model Based on Context, Workload, and Satisfaction. *Teaching & Teacher Education*, 8 (1): 31-46.